Amendments to the Specification

Please amend the specification as follows:

On page 17, please replace the paragraph that starts on line 4 with the word "Some" and ends on line 12 with the word "processing" with the following amended paragraph:

Some embodiments of glasses can also be obtained by other techniques, such as: laser spin melting with free fall cooling, Taylor wire technique, plasmatron technique, hammer and anvil technique, centrifugal quenching, air gun splat cooling, single roller and twin roller quenching, roller-plate quenching, and pendant drop melt extraction (see, e.g., Rapid Solidification of Ceramics, Brockway et al.,~~et. al,~~ Metals And Ceramics Information Center, A Department of Defense Information Analysis Center, Columbus, OH, January, 1984). Some embodiments of glasses may also be obtained by other techniques, such as: thermal (including flame or laser or plasma-assisted) pyrolysis of suitable precursors, physical vapor synthesis (PVS) of metal precursors and mechanochemical processing.

On page 22, please replace the paragraph that starts on line 3 with "Embodiments" and ends on line 28 with the word "distribution" with the following amended paragraph:

Embodiments of glasses and glass-ceramics made according to the present invention can be obtained without limitations in dimensions. This was found to be possible through a coalescing step performed at a temperature above the glass transition temperature. This coalescing step in essence forms a larger sized body from two or more smaller particles. For instance, as evident from FIG. 8, a glass undergoes glass transition (T_g) before significant crystallization occurs (T_x) as evidenced by the existence of an endotherm (T_g) at lower temperature than an exotherm (T_x). For example, ceramic (including glass prior to

crystallization), may also be provided by heating, for example, particles comprising the glass, and/or fibers, etc. above the T_g such that the particles, etc. coalesce to form a shape. The temperature and pressure used for coalescing may depend, for example, upon composition of the glass and the desired density of the resulting material. The temperature should be greater than the glass transition temperature. In certain embodiments, the heating is conducted at at least one temperature in a range of about 650°C to about 1100°C (in some embodiments, 675°C to 850°C). Typically, the glass is under pressure (e.g., greater than zero to 1 GPa or more) during coalescence to aid the coalescence of the glass. In one embodiment, a charge of the particles, etc. is placed into a die and hot-pressing is performed at temperatures above glass transition where viscous flow of glass leads to coalescence into a relatively large part. Examples of typical coalescing techniques include hot pressing, hot isostatic pressing, hot extrusion, hot forging and the like (e.g., sintering, plasma assisted sintering). For example, particles comprising glass (obtained, for example, by crushing) (including beads and microspheres), fibers, etc. may be formed into a larger particle size. Coalescing may also result in a body shaped into a desired form. In some embodiments, it is desirable to cool the resulting coalesced body before further heat treatment. After heat treatment if so desired, the coalesced body may be crushed to smaller particle sizes or a desired particle size distribution.

On page 24, please replace the paragraph that starts on line 27 with the word "Typically" and ends on page 25, line 3, with the word "1979" with the following amended paragraph:

Typically, glass-ceramics are stronger than the glasses from which they are formed. Hence, the strength of the material may be adjusted, for example, by the degree to which the glass is converted to crystalline ceramic phase(s). Alternatively, or in addition, the strength of the material may also be affected, for example, by the number of nucleation sites created, which may in turn be used to affect the number, and in turn the size of the crystals of the crystalline phase(s). For additional details regarding forming glass-ceramics, see, for example, ~~example~~ Glass–Ceramics, P.W. McMillan, Academic Press, Inc., 2nd edition, 1979.

On page 30, please replace the paragraph that starts on line 14 with the word "Additional" and ends on line 23 with the word "reference" with the following amended paragraph:

Additional details regarding embodiments of ceramics (including methods of making and using the same) comprising at least Al_2O_3, REO, and at least one of Nb_2O_5 or Ta_2O_5 may be found, for example, in application having U.S. Serial No. 10/666615~~ (Attorney Docket No. 58354US002),~~ filed the same date as the instant application, the disclosure of which is incorporated herein by reference. Additional details regarding embodiments of ceramics (including methods of making and using the same) comprising at least two of (a) Al_2O_3, (b) Y_2O_3, or (c) at least one of ZrO_2 or HfO_2, and at least one of Nb_2O_5 or Ta_2O_5 may be found, for example, in application having U.S. Serial No. 10/666098~~ (Attorney Docket No. 58961US002),~~ filed the same date as the instant application, the disclosure of which is incorporated herein by reference.